

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

ELIMINATION REPORT
FOR
ROHM & HAAS COMPANY
PHILADELPHIA, PENNSYLVANIA

Department of Energy
Office of Nuclear Energy
Office of Remedial Action and Waste Technology
Division of Facility and Site Decommissioning Projects

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ELIMINATION REPORT
ROHM & HAAS COMPANY
PHILADELPHIA, PENNSYLVANIA

INTRODUCTION

The Department of Energy (DOE), Office of Nuclear Energy, Office of Remedial Action and Waste Technology, Division of Facility and Site Decommissioning Projects (and/or predecessor offices and divisions) has reviewed the past activities of the Atomic Energy Commission (AEC) at the Rohm & Haas Company, Philadelphia, Pennsylvania. Based on a preliminary radiological survey of the site, DOE has determined that the conditions at this site are in compliance with current DOE radiological guidelines and standards and that no potential for radiological exposure exists beyond those resulting from natural background. Therefore, this site requires no remedial action and will not be included in the Formerly Utilized Sites Remedial Action Program.

This report presents information supporting the determination that the radiological conditions at the Rohm & Haas Company are in compliance with current DOE radiological guidelines and standards¹ and provides assurance that use of the site will not result in any measurable radiological hazard to site occupants or the general public.

This elimination report will be archived by DOE through the Assistant Secretary for Management and Administration. A copy of this package will be available for public review between 8:00 a.m. and 4:00 p.m., Monday through Friday (except Federal holidays), at the DOE Public Document Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C.

¹ U.S. Department of Energy Guidelines for Residual Radioactivity at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites (Rev. 1, July 1985).

BACKGROUND

Site Function

Rohm & Haas Company performed research and development on methods for analyzing and processing uranium ores under AEC Contract AT-(49-1)-535. The facility was operated in the early 1950s and also processed various minerals, some of which contained uranium, in order to produce compounds of zirconium and rare earth elements.

Site Description

The plant, owned and operated by Rohm & Haas Company, is located at 5000 Richmond Street, Philadelphia. The portions of the facility used under the AEC contract included an area of Building 60 (research area) for laboratory scale work and Building 49c (semiworks area or pilot process area). The two rooms in Building 60 used for the AEC work are still used as laboratories and remain very much as they were at the time of the project, except for the removal of equipment in 1968 (disposition unknown). The semiworks area of Building 49c is now used primarily for storage.

Radiological History and Status

Oak Ridge Operations Office and Oak Ridge National Laboratory personnel visited the site on December 1, 1977, and surveyed Rooms 22 and 24, a wing of Building 60, and the semiworks area of Building 49c. Gamma-ray exposure-rate measurements ranged from 6 to 8 microroentgens/hour (essentially background). Direct measurements of alpha radiation were at background levels, and the maximum beta-gamma dose rate was far below the surface contamination guideline value.² Based on the Oak Ridge National Laboratory survey report, DOE concluded that no remedial action is necessary.


² Opt Cit., p. 4.

ELIMINATION ANALYSIS

The radiological survey of the facilities used for AEC work found alpha radiation levels were comparable to natural background for the area and that beta-gamma levels were near background (0.06 millirad/hour) and well below guidelines for release of a facility for unrestricted use. Potentially contaminated process equipment has been removed. Therefore, no significant quantity of radioactive material from AEC operations remains at this site. Based on the information summarized in this report, DOE's Division of Facility and Site Decommissioning Projects has determined that no remedial action is necessary at this site and has eliminated the Rohm & Haas Company from further consideration under the Formerly Utilized Sites Remedial Action Program.

REFERENCES

- o Thornton, W.T. (Department of Energy) to R. Bjuvik (sic) (Rohm and Haas Company), "Radiological Status of Former Atomic Energy Commission Contract Facilities," November 16, 1977.
- o Mott, W.E. (Department of Energy) to R. Bjuvik (sic) (Rohm and Haas Company), (transmittal of preliminary radiological survey report), May 5, 1980.


Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

C. Brown
↓
RWD
November 16, 1977

Mr. Roy Bjuvik, Plant Manager
Rohm and Haas Company
5000 Richmond Street
Philadelphia, Pennsylvania 19137

Dear Mr. Bjuvik:

Subject: RADIOLOGICAL STATUS OF FORMER ATOMIC ENERGY COMMISSION
CONTRACT FACILITIES

This will confirm our discussions arranging for Department of Energy representatives to visit facilities at 5000 Richmond Street, Philadelphia, Pa., which were utilized in the early 1950's by Rohm and Haas for work under Contract AT-(49-1)-535 with the AEC. The Department of Energy has underway a nationwide site reassessment program and this visit will assist us in evaluating the adequacy of existing radiation records and determining the need for additional surveys so the Department and the Company can be assured that conditions resulting from AEC contract operations do not exist which would be contrary to current guidelines for radiation control.

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Contract activities included research and development on analysis and processing of various uranium ores. Should these facilities no longer exist, it is hoped that the areas involved can be located so that appropriate radiation measurements can be made.

Mr. F. F. Haywood of the Oak Ridge National Laboratory and I plan to arrive December 1 at 9 AM and will contact you upon arrival. If there are any questions about this matter, please call me at (615) 483-8611, Extension 3-4175.

Your cooperation in this matter is appreciated.

Sincerely,



W. T. Thornton
Environmental Protection Branch
Safety & Environmental Control Division

OSB:WTT



Department of Energy
Washington, D.C. 20545

MAY 5 1980

Mr. Roy Bjuvik
Plant Manager
Ronn and Haas Company
5000 Richmond Street
Philadelphia, Pennsylvania 19137

Dear Mr. Bjuvik:

I am enclosing for your review a copy of a preliminary radiological survey report of your facility located in Philadelphia, Pennsylvania. I will appreciate receiving your comments at an early date, if possible by May 19, 1980.

Sincerely,

William E. Mott, Director
Environmental Control
Technology Division
Office of Environment

Enclosure

PRELIMINARY SURVEY OF
ROHM AND HAAS COMPANY
Philadelphia, Pennsylvania

Work performed
by the
Health and Safety Research Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

March 1980

OAK RIDGE NATIONAL LABORATORY
operated by
UNION CARBIDE CORPORATION
for the
DEPARTMENT OF ENERGY
as part of the
Formerly Utilized Sites--
Remedial Action Program

ROHM AND HAAS COMPANY
Philadelphia, Pennsylvania

At the request of the Department of Energy (DOE), a preliminary survey was performed at the Rohm and Haas Company plant in Philadelphia, Pennsylvania (see Fig. 1), on December 1, 1977, to assess the radiological status of those facilities utilized under Atomic Energy Commission (AEC) Contract AT(49-1)-535 (the contract was destroyed at some point between 1955 and 1977) during the period 1947 through 1955. Roy Bjuvik, Plant Manager, provided information about the project and identified other company representatives who also provided useful information and indicated areas involved in the project. Contract activities included research and development related to analyzing and processing of various uranium ores.

From information obtained in discussions with company representatives, the facilities involved in the project were Building 60, A Wing, Rooms 22 and 24, and a part of Building 49C semiworks area (see Figs. 2 and 3).

Present Use of Facilities

Rooms 22 and 24, A Wing, Building 60, are laboratories which remain very much as they were at the time of the project, except for the removal of equipment in 1968. The portion of Building 49C which was involved is currently used primarily for storage. No information is currently available as to the radiological status of these facilities at the time the project ended.

Results of Preliminary Survey

The preliminary survey was conducted by H. W. Dickson of the Oak Ridge National Laboratory and W. T. Thornton of the Department of Energy-Oak Ridge Operations Office. Exploratory measurements at randomly selected locations within each of the three rooms involved were performed. The measurements consisted of gamma-ray exposure rates made at a height of 1 m above floor surfaces and direct measurements of alpha radiation on surfaces. Additionally, beta-gamma dose rates were measured using Geiger-Mueller survey meters. Readings were taken at 1 cm above the surface at corresponding locations.

The maximum gamma-ray exposure rate at 1 m height for either of the three areas was 8 μ R/hr. The maximum beta-gamma reading at 1 cm from the surface at corresponding locations was 0.06 mrad/hr. All direct measurements of alpha radiation were at background levels. Based on the measurements made during this preliminary survey, it was concluded that no formal survey would be required at this site.

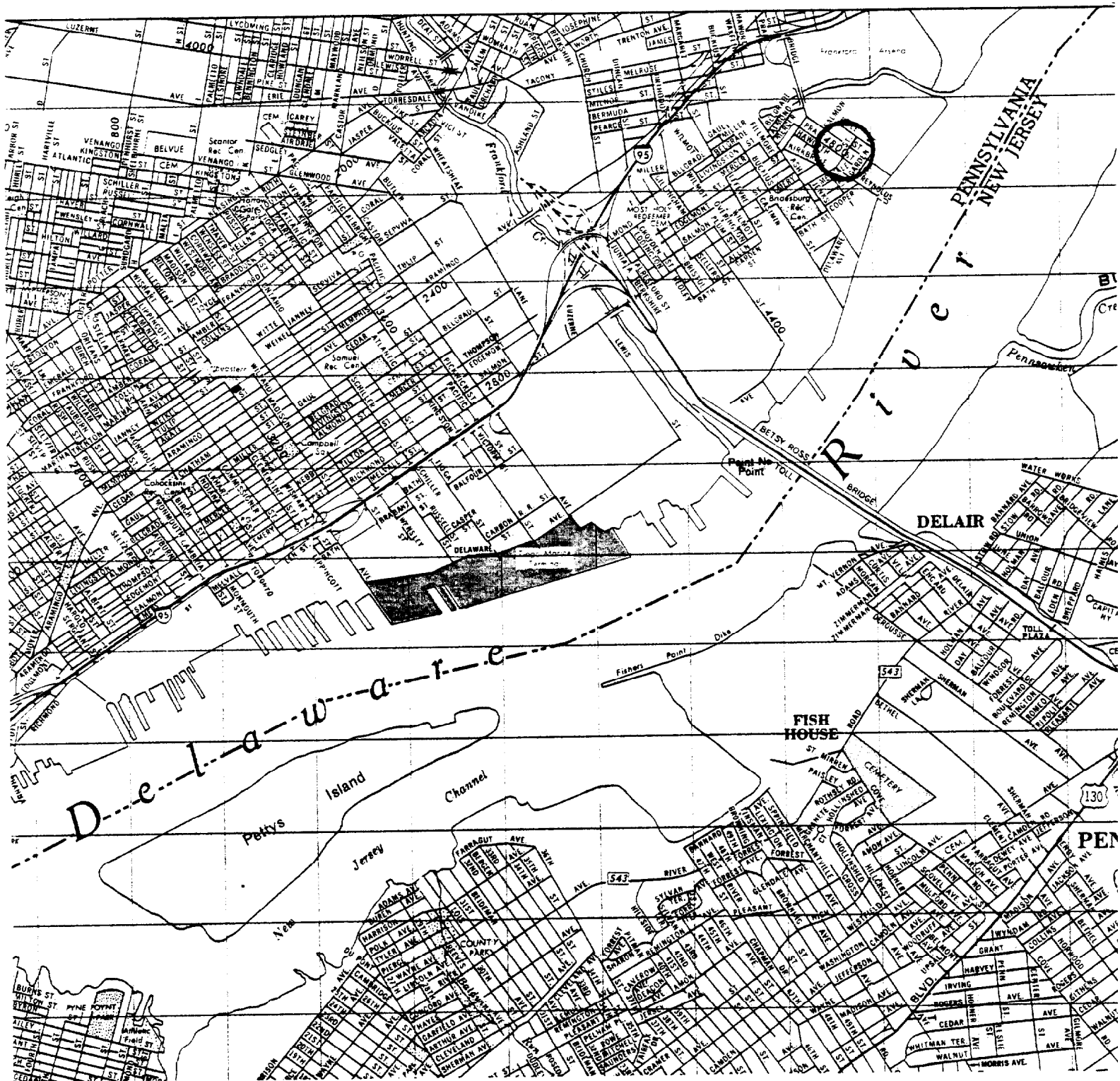
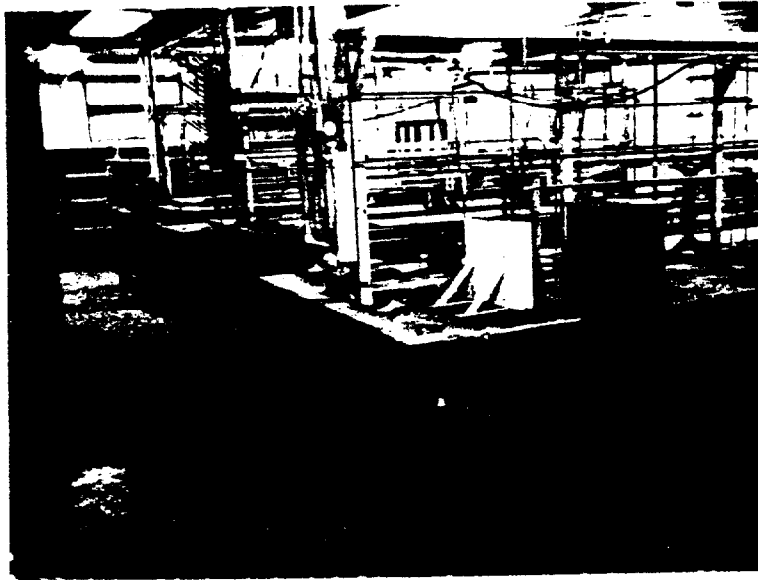


Fig. 1. Location of the Rohm and Haas Company in Philadelphia, Pennsylvania.



Building 60 A-Wing Room 22

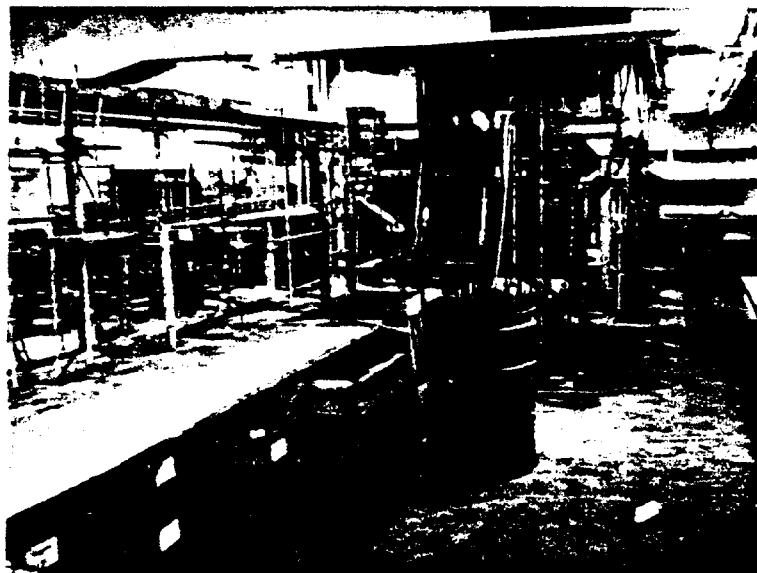


Fig. 2. Views of laboratories on A Wing,
Building 60.



Fig. 3. View of semiworks area in part of Building 49C.